Hi-Speed Industrial Service
7030 Ryburn Dr
Millington, Tn 38053
901-873-5300

AC Recondition As Found

Hi-Speed Industrial Service
7030 Ryburn Drive
MILLINGTON, Tennessee 38053

FolderID: 149639
FormID: 16058734

AC Recondition - Rev. 2

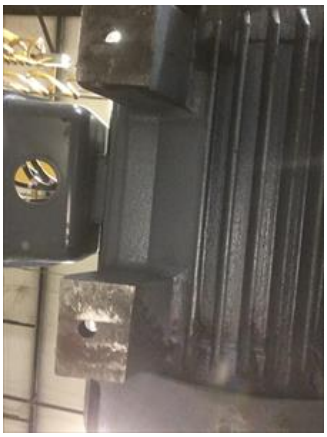
Location:	Millington Motor Shop
Serial Number:	

Hi-Speed Job Number:	149639
Phase:	Three
Enclosure:	TEFC
# of Leads:	9
J-box Included:	Half
Coupling/Sheave:	None
Date Received:	02/24/2023
Bearing RTDs:	No
Stator RTDs:	Yes
Repair Stage:	Teardown Inspection
Heaters:	No
Winding Type :	Random Wound
Bearing Type:	Rolling Element

Priorities Found: **3 - High** **6 - Good**

Overall Condition

1.	Report Date	**02/24/2023**
2.	Nameplate Picture	**no nameplate**
3.	Photos of all six sides of the machine.	P3



	4.	Describe the Overall Condition of the Equipment as Received ***Dirty, needs new lugs , wrong grease in endbells***	
Initial Mechanical/Electrical			
●	5.	Does Shaft Turn Freely?	**(Yes) Yes**
	6.	Does Shaft Have Visible Damage?	**(No) No**
●	7.	Assembled Shaft Runout	**0.001 Inches**
	8.	Assembled Shaft End Play	**0.001 inches**
	9.	Air Gap Variation <10%	**no provisions for measurement**

10.	Lead Condition	**(P) Pass**	P11
	Lugs need to be cleaned up or re lugged		

11.	Lead Length	**8 Inches**
12.	Stator Temperature Detector Rating and Function	

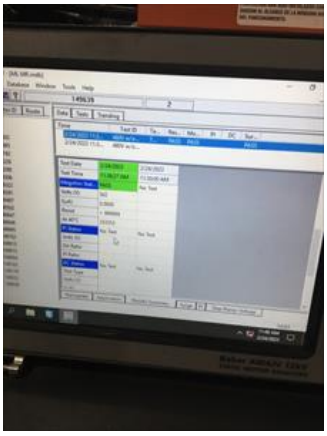
Quantity	Rating	Quantity Passed
1	**.6**	**1**

13.	Frame Condition	**good**
14.	Fan Condition	**(F) Fail** P16

15.	Broken or Missing Components	**yes**
	Fan broken	

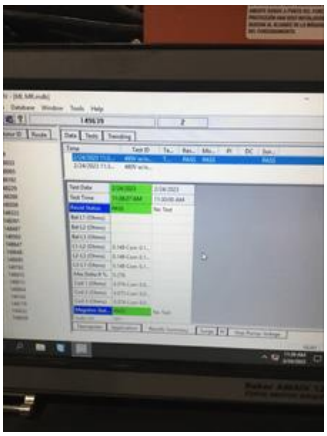
Initial Electrical Inspection

16.	Insulation Resistance/Megger	**353553 Megohms**	P19

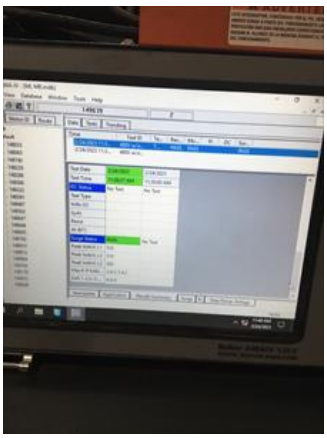


17.	Winding Resistance		P20

1-2	1-3	2-3



18.	Perform Surge Test	**(P) Pass**	P21



19.	Number of Stator Slots	**48 Megohms**
20.	Stator Condition	**acceptable**

Mechanical Inspection

21. Drive End Bearing Brand **skf** P24

22. Drive End Bearing Number- **6312-2z/C3GJN** P25

23.	Drive End Bearing Qty.	**1**	
24.	Drive End Bearing Type	**(Ball) Ball Bearing**	
25.	Drive End Lubrication Type	**(Grease) Grease Lubricated**	P28

Wrong grease

Shields on

26.	Drive End Bearing Insulation or Grounding Device?	**none present**	
27.	Drive End Wavy Washer/Snap-Ring Other Retention Device?	**none present**	
28.	Drive End Bearing Condition	**worn wrong grease**	
29.	Opposite Drive End Bearing Brand	**koyo**	P32

30.	Opposite Drive End Bearing Number-	**6311ZC3**	P33

31.	Opposite Drive End Bearing Qty.	**1**	
32.	Opposite Drive End Bearing Type	**(Ball) Ball Bearing**	
33.	Opposite Drive End Lubrication Type	**(Grease) Grease Lubricated**	P36

Wrong grease

34.	Opposite Drive End Bearing Insulation or Grounding Device?	**none present**	
35.	Opposite Drive End Wavy Washer/Snap-Ring Other Retention Device?	**wavy washer**	P38

36.	Opposite Drive End Bearing Condition	**worn**	P39

37.	Drive End Seal	**none present**
38.	Opposite Drive End Seal	**none present**

Rotor Inspection

39.	Rotor Type/Material	**(Squirrel Aluminum) Squirrel Cage Aluminum Die Cast**
40.	Growler Test	**(Pass) Pass**
41.	Number of Rotor Bars	**40**
42.	Rotor Condition	**acceptable**
43.	List the Parts needed for the Repair Below ***(1)6312-2z/C3GJN*** ***(1)6311ZC3*** ***Fan***	
44.	Signature of Technician that Disassembled Motor	**Brian Goines**

Mechanical Fits- Rotor

45.	Shaft Runout	**0.0005 inches**	P56

46. Rotor Runout

Drive End Bearing Fit	Rotor Body	Opposite Drive End Bearing
0.001	**0.002**	**0.002**

47.	Coupling Fit Closest to Bearing Housing			
	0 Degrees	90 Degrees	120 Degrees	
	2.1248	**2.1248**	**2.1248**	
48.	Coupling Fit Closest to the end of the Shaft			
	0 Degrees	60 Degrees	120 Degrees	
	2.1248	**2.1248**	**2.1248**	
49.	Drive End Bearing Shaft Fit			P60
	0 Degrees	60 Degrees	120 Degrees	
	2.3631	**2.3631**	**2.3631**	
	60mm=2.3622. Tolerance is 2.3623-2.3628. .0003 oversized recommend no machine work			

50.	Drive End Bearing Shaft Fit Condition	**(F) Fail**
51.	Opposite Drive End Bearing Shaft Fit	

0 Degrees	60 Degrees	120 Degrees
2.166	**2.166**	**2.166**

55mm=2.1653. Tolerance is 2.1655-2.1660

52.	Opposite Drive End Bearing Shaft Fit Condition	**(P) Pass**
53.	Shaft Air Seal Fits	

Drive End Air Seal	Opposite Drive End Air Seal
good	**good**

Mechanical Fits- Bearing Housings

54.	Drive End - Endbell Bearing Fit	

0 Degrees	60 Degrees	120 Degrees
5.1192	**5.1192**	**5.1192**

130mm=5.1181. Tolerance is 5.1181-5.1191. .0001 outside of tolerance recommend no machine work

55.	Drive End - Endbell Bearing Fit Condition	**(F) Fail**

56. Opposite Drive End - Endbell Bearing Fit

0 Degrees	60 Degrees	120 Degrees
4.725	**4.725**	**4.7251**

120mm=4.7244. Tolerance is 4.7244-4.7253

57. Opposite Drive End - Endbell Bearing Fit Condition **(P) Pass**

58. Bearing Cap Condition

Drive End Bearing Cap	Opposite Drive End Bearing Cap
none	**none**

59. End Bell Air Seal Fits

Drive End Air Seal	Opposite Drive End Air Seal
good	**good**

60. List Machine Work Needed Below

None

61. Technician **Brandon Woodard**

Root Cause of Failure

62. Failure locations

63. Root cause of failure